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SAFETY LOCK FOR SEMI-AUTOMATIC
HANDGUNS

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Listing of Claims

Claim 1 (cancelled)

Claims 1-16 (new)



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I Claim

1. A lockable safety mechanism for use in semi-automatic hand guns, that will block the manual safety switch externally, comprising

A. A substantially cylindrical body having a left end, comprising a locking aperture formed along a substantially longitudinal axis of the lock core with a female receiving end formed in the left end of the core.

B. In a handgun having a frame, without a hammer assembly, with a manual safety switch supported by said frame so as to move to and from the safe position, a spring loaded firing pin with guide

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when cocked to urge said firing pin to the firing position, a trigger mechanism carried by said frame for releasably holding said firing pin in the cocked position. A releasable lockable safety mechanism that can be carried by said frame comprising a locking mechanism including a lock core moveable toward and away from the manual safety switch. The lockable safety mechanism being engaged with said manual safety switch preventing it from moving to the fire position. The lockable safety mechanisms core being moveable within its casing for moving said core to and from the locking position, and a key means engageable with and disengageable from the left end of said lockable safety mechanism for rotating its core to and from the locking position

2 A handgun as set forth in claim 1A and 1B wherein said handgun can be intergrated with the right end of said lockable safety mechanism

3 A handgun as set forth in claim 1A and 1B wherein the left end of said lockable safety mechanism and the right end of said key means are formed with complementary parts.

4. In a semi-automatic handgun having a frame, a firing mechanism supported by said frame so as to move to and from the cocked position, a spring within said frame acting on said firing pin mechanism when in the cocked position to urge said mechanism to the firing position, and a trigger mechanism carried by said frame for releasably holding said firing mechanism in the cocked position, a releasable lockable safety mechanism carried by said frame comprising a lock core moveable toward and away from the manual safety switch so as to hold it in a position such that the firing mechanism cannot fire, and a key means having an inner end portion engageable with and disengageable from the left end portion of said lockable safety mechanism for turning its core to and from the lock position, the left end portion of said lockable safety mechanism having spaced grooves and slots, and the right end portion of the key means having spaced projections fitting the grooves and slots in the lockable safety mechanism core.

5. In a semi-automatic handgun having a frame, a firing mechanism supported by said frame so as to move to and from the cocked position, a spring within said frame acting on said firing mechanism when in the cocked position to urge it into the fire position and a trigger mechanism carried by said frame for releasably holding said firing mechanism in the cocked position, a releasable manual safety switch carried by said frame, comprising a manual safety switch moveable from the safe to fire position, a rotatable core in the lockable safety mechanism being engageable with said safety switch so as to hold it in a position such that the handgun cannot be fired and a key means having an inner end portion engageable with and disengageable from the left end of the lockable safety mechanisms core for turning the core from the locking position, the left end portion of said lockable safety mechanism core having spaced grooves and the inner end portion of the key having spaced projection fitting the grooves in the left end of the lockable safety mechanisms core.
6. In a semi-automatic handgun having a frame, a firing mechanism supported by said frame so as to move to and from the cocked position, and a spring within said frame acting on said firing mechanism when in the cocked position to urge it to the firing position and a trigger mechanism carried by said frame for releasably holding said firing mechanism in the cocked position, a manual safety switch carried by said frame, comprising a manual safety switch moveable from the safe position to the fire position, a rotatable core within the lockable safety mechanism moveable into and out of the locking engagement with the manual safety switch, and a key having an inner end portion engageable with and disengageable from the left end of the rotatable core of the lockable safety mechanism. The left end of said core having three spaced grooves and the inner end of the key means having complementary projections, the left end of said lockable safety mechanisms core having spaces between grooves being substantially flush with the remaining left end portion of the lockable safety mechanism to exclude from the grooves objects having transverse blade portions extending substantially perpendicular to the axis of the locks core.
7. In a semi-automatic handgun as set forth in claim 6 wherein a rotatable key guide is disposed in the left end of the rotatable core, said guide having a left end wall and a outer casing therein through which the inner end of the key extends to engage the left end of the rotatable lock core disengaging the locking arms.
8. A semi-automatic handgun as set forth in claim 6, wherein the left end portion of the rotatable lock core is formed with grooves and the inner end of the key is formed with shaped prongs complementary to said grooves.
9. A semi-automatic handgun as set forth in claim 6, wherein the left end portion of the rotatable core is formed with grooves and the inner end of the key is formed with shaped prongs complementary to said grooves, and a key guiding means adjacent to the left end of the rotatable lock core, said guiding means having an outer casing and an aperture therein through which the inner end of the key extends to engage the left end of the rotatable lock core.
10. In a semi-automatic handgun having a frame, a firing means including a firing pin movable within the frame when the handgun is fired and a trigger in control of the firing means,

a releaseable manual safety switch for positively obstructing the movement of the firing means against operative displacement when the switch is in the safe position

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A lockable safety mechanism comprising a rotatable core moveable toward and away from locking engagement with said manual safety switch, and aperture in the frame coaxially disposed with relation to the right end of the lockable safety mechanism and an actuating means for rotating the core of the lockable safety mechanism, into and out of the positive locking engagement with the manual safety switch comprising a key operated through the aperture in the lockable safety mechanism to engage the left end of the rotatable core within the lockable safety mechanism, said actuating means having provisions for preventing operation of the lockable safety mechanism by bladed object having a straight blade end perpendicular to the axis of the rotatable core.

11. A semi-automatic handgun having a frame, a firing means within said frame so as to move to and from the cocked position, a spring within said frame acting on said firing means when in the cocked position, to urge it to the firing position, and a trigger mechanism carried by said frame for releaseably holding said firing means in the cocked position, a releaseable manual safety switch for said firing means, comprising a safety switch carried by the frame moveable toward and away from said fire position, a lockable safety mechanism having a left end portion engageable with the safety switch to block said switch against movement to the fire position, a key guide disposed in the rotatable core with coaxial relation to the rotatable core of the lockable safety mechanism outwardly at the left end of said mechanism, a key passage through the key guide, and a key insertable through said passage and engageable with the left end portion of the rotatable core of the lockable safety mechanism for rotating said core in to and out of locking engagement with the manual safety switch.

12. A semi-automatic handgun as set forth in claim 11 wherein the lockable safety mechanism has a circular-shaped left end portion.

13. A semi-automatic handgun as set forth in claim 11 wherein the lockable safety mechanism has a stud guide so that approximately a half rotation of the locks core is sufficient to move the core between the locking and release position.

14 A semi-automatic handgun as set forth in claim 11 where the stud guide of the locking mechanism range of movement is provided by a pin disposed in the lock outer casing generally transversed to the axis of the rotation of the locks core and intersected into the stud guide.

15. A semi-automatic handgun as set forth in claim 11 wherein the key guide is formed by the inner and outer casing of the lockable safety mechanism, the said casing are secured to the lock core by a pin inserted through the stud guide and into and through the inner and outer casing to the locks core.

16 . A semi-automatic handgun as set forth in claim 11, without a manual safety switch , having a manual slide lock to hold the slide in the open position when engaged , and to release the slide to move to the battery position . A lockable safety mechanism that prevents the manual slide from disengaging without a key .